Letters

Composite index of anthropometric failure (CIAF) classification: is it more useful?

Editor – The paper published by Nandy et al. in the *Bulletin* on the composite index of anthropometric failure (CIAF) is welcome in view of the paucity of recent attempts to classify undernourished children satisfactorily.[1] However, the usefulness of the CIAF classification has to be considered vis-à-vis Waterlow's widely used stunting–wasting classification.[2]

In addition to height for age (HA) and weight for height (WH), the CIAF classification uses weight for age (WA) — a measure that does not differentiate acute, chronic, and past (recent or remote) undernutrition. The CIAF classification introduces two new groups of children (group B and group C). Group B (2.6%) has normal HA and WA but low WH, an improbable anthropometric combination; group C (6.1%), with higher HA but low WH and WA, is of little immediate concern and can be considered "healthy", presumably growing up to become thin tall adults.[3] Other groups, A, D, E, F and Y in the CIAF classification are covered by the Waterlow classification.[4]

The CIAF classification does not address the limitations of the Waterlow classification.[2] Firstly, it does not satisfy the long-felt need for a combined clinical and anthropometric classification that would be useful for clinical as well as community health work. The classification proposed by the Wellcome Trust Working Party in 1970[5] and the one used in a WHO monograph in 1999[6] are inadequate because their coverage of syndromes is incomplete and predetermined, and inappropriate anthropometric criteria are assigned to the syndromes. Personally, I prefer to use a composite classification in which a syndrome is first diagnosed clinically and the anthropometric status (criteria not predetermined) of stunting–wasting is then applied to it.[7,8]

Secondly, although children with Z-scores of less than –3 are considered to be severely undernourished, the lower limit of severity remains undefined. I have observed children aged 3–5 years suffering from prolonged or repeated nutritional assaults with extremely low Z-scores (HA: –6 to –7; WA: –5 to –6; and WH –3 to –4) and identified a very severe type, the *nutritionally battered child*.[7–9] Possibly such cases are flagged as improbable in National Family Health Surveys (NFHS) and hence excluded.[1] The severe cases of stunting–wasting in the absence of kwashiorkor or marasmus reported by Indian workers may resemble these.[8]

Lastly, although in the Waterlow classification[2] wasting means low WH, as a clinical sign it means visible loss of subcutaneous fat and skeletal muscles. Low WH is observed with clinical wasting in cases of acute undernutrition and in chronic undernutrition of marasmic but not mild-to-moderate or severe (florid kwashiorkor) types where fat masks muscle wasting, if present. Hence, low WH may or may not be associated with clinical wasting, and wasting in the Waterlow classification[2] should be differentiated as anthropometric wasting. In their paper, Nandy et al. do not seem to have appreciated this difference and have incorrectly stated that "wasting is an indicator of acute undernutrition".[1]

NFHS data are not always reliable,[1] and the reliability of the CIAF model needs to be tested using carefully collected data. However, the associations exhibited between the types of anthropometric failure and morbidities are interesting. ■

Competing interests: none declared.

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